BRUHAT BENGALURU MAHANAGARA PALIKE

Name of the work :- Construction of RCC culvert & U Shape drain for secondary SWD drains near Divya engineering works at Kammagondanahalli in Ward No.12

Measurement recorded on 30/12/2018

S.N	Description	Unit	No.	L	B	D	Qty
14	KSRRB M 2200-5.12 : Design mix M25 sub structure with OPC cement @340kgs, with 20mm and down size graded granite metal coarse aggregates @0.7Cum and fine aggregates @0.47Cum with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 upto 5 mtrs. Upto 5 Mtrs height all leads and lifts as directed by the Engineer in charge of the work.(SR2018-19P227 /28.7.12)						
	Ward Drain						
	1st culvert		1	3.60	0.18	0.60	0.39
						Total	0.39

PMC

Assistant Engineer, SWD Dasarahalli Zone,BBMP. 30/12/18

Assistant Executive Engineer, SWD Dasarahalli Zone,BBMP.

Measurement recorded on 30/12/2018

S.N	Description	Unit	No.	L	B	D	Qty
14	KSRRB M 2200-5.12 : Design mix M25 sub structure with OPC cement @340kgs, with 20mm and down size graded granite metal coarse aggregates @0.7Cum and fine aggregates @0.47Cum with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 upto 5 mtrs. Upto 5 Mtrs height all leads and lifts as directed by the Engineer in charge of the work.(SR2018-19P227 /28.7.12)						
	2nd culvert		2	3.60	0.18	0.50	0.65
						Total	0.65

(0.39+0.65) = 1.04

PMC

Assistant Engineer, SWD Dasarahalli Zone,BBMP. 30/12/18

Assistant Executive Engineer, SWD Dasarahalli Zone,BBMP.

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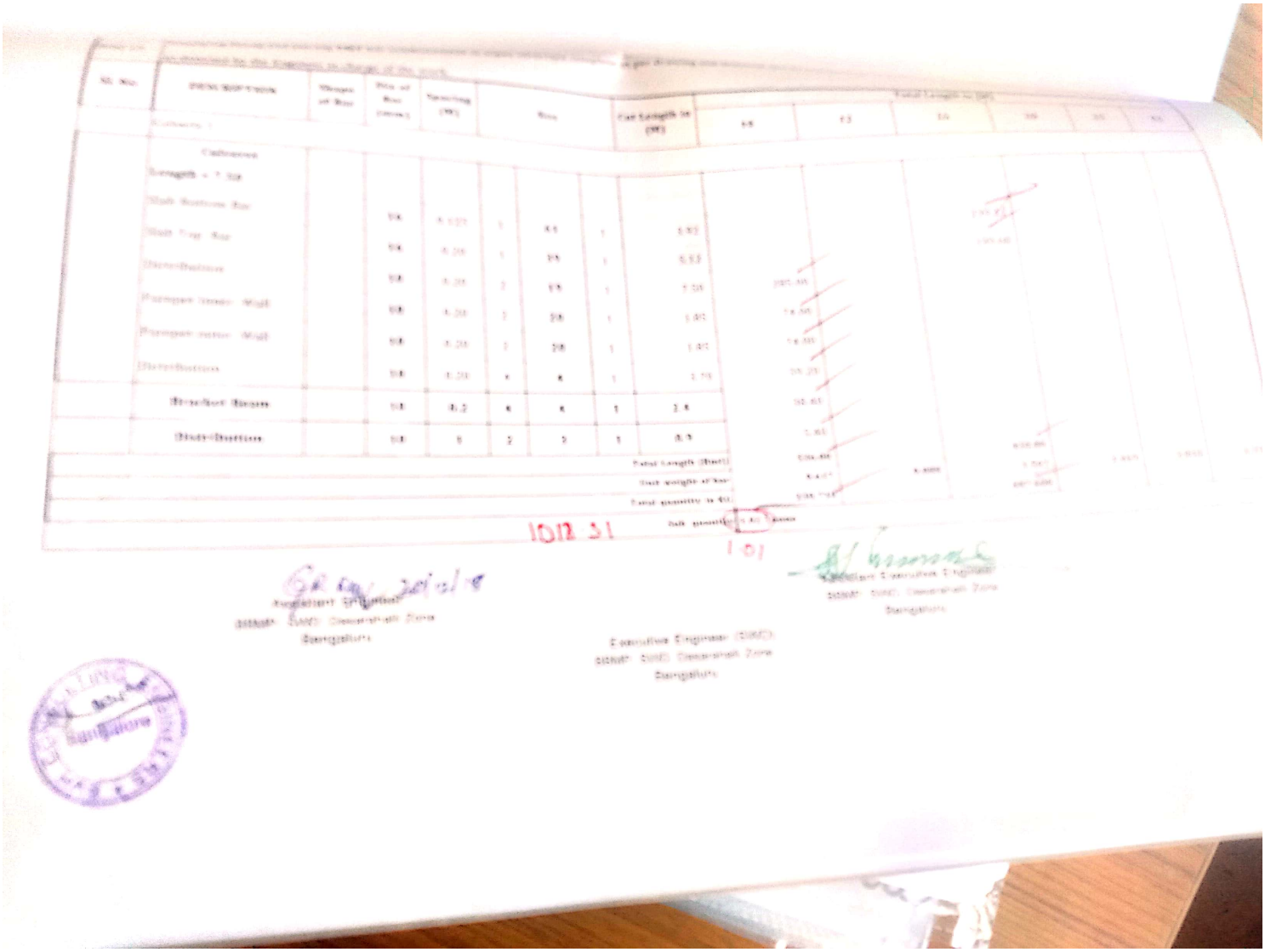

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BOQ-19 Supplying fitting and placing TMT bar reinforcement in super-structure complete as per drawing and section at specification as directed by the Engineer in charge of the work.

SL No.	DESCRIPTION	Shape of Bar	Dia of Bar (mm)	Spacing (M)	Nos		Cut Length in (M)	Total Length in (M) 10	12	16	20	25	32
	Culverts-1												
	Culveret												
	Length = 7.50												
	Slab Bottom Bar		16	0.125	1	61	1	3.92	-	-	239.12	-	-
	Slab Top Bar		16	0.20	1	39	1	5.12	-	-	199.68	-	-
	Dirtribution		10	0.20	2	19	1	7.50	285.00	-	-	-	-
	Parepet Inner Wall		10	0.20	2	20	1	1.85	74.00	-	-	-	-
	Parepet outer Wall		10	0.20	2	20	1	1.85	74.00	-	-	-	-
	Dirtribution		10	0.20	4	4	1	3.70	59.20	-	-	-	-
	Bracket Beam		10	0.2	4	4	1	2.4	38.40	-	-	-	-
	Distribution		10	1	2	3	1	0.9	5.40	-	438.80	-	-
								Total Length (Rmt)	536.00	-	1.567	2.469	3.850
								Unit weight of bar	0.617	0.888	687.600	-	-
								Total quantity in KG	330.710	-	-	-	-
								Sub quantity	1.02 Tonne				

1018.31

1.01

GR Rao 20/12/18

Assistant Engineer
BBMP- SWD, Dasarahalli Zone
Bengaluru

Executive Engineer (SWD)
BBMP- SWD, Dasarahalli Zone
Bengaluru

Assistant Executive Engineer
BBMP- SWD, Dasarahalli Zone
Bengaluru

BVR CONSULTING ENGINEERS Bangalore

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SI. No.	DESCRIPTION	Shape of Bar	Dia of Bar (mm)	Spacing (M)	Nos		Cut Length in (M)	10	12	16	20	25	32
	Culverts 2												
	Culveret												
	Length = 7.50												
	Slab Bottom Bar		16	0.125	1	61	1	3.66			223.26		
	Slab Top Bar		16	0.20	1	39	1	3.86			150.54		
	Dirtribution		10	0.20	2	19	2	7.50	570.00				
	Parapet Inner Wall		10	0.20	2	20	1	1.85	74.00				
	Parapet outer Wall		10	0.20	2	20	1	1.85	74.00				
	Dirtribution		**10**	**0.2**	**4**	**4**	**1**	**3.7**	59.20				
	Bracket Beam		**10**	**0.2**	**4**	**4**	**1**	**2.4**	38.40				
	Distribution		**10**	**1**	**2**	**3**	**1**	**0.9**	5.40				
								Total Length (Rmt)	821.00	0.888	373.80	2.469	3.850
								Unit weight of bar	0.617		1.561		
								Total quantity in KG	506.560		585.740		
							1092.3	**Sub quantity**	1.09 Tonne				

Assistant Engineer
BBMP, SWD, Dasarahalli Zone
Bengaluru

Executive Engineer (SWD)
BBMP, SWD, Dasarahalli Zone
Bengaluru

Assistant Executive Engineer
BBMP, SWD, Dasarahalli Zone
Bengaluru

EVM CONSULTING ENGINEERS
Bangalore

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BRUHAT BENGALURU MAHANAGARA PALIKE

Name of the work :- Construction of RCC culvert & U Shape drain for secondary SWD drains near Divya engineering works at Kammagondanahalli in Ward No.12

Measurement recorded on 31/12/2018

S.N	Description	Unit	No.	L	B	D	Qty
17	**KSRRB M2300-8.1.** Furnishing and Placing Reinforced/ Prestressed cement concrete in **super-structure** as per drawing and Technical Specification complete as per specifications. D. RCC / PSC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, Case - II : Using Batching Plant, Transit Mixer & Concrete Pump MORTH Specification No. 1500,1600 & 1700. Height upto 5 m all leads and lifts as directed by the Engineer in charge of the work.						
	For Slab CULVERT-1	Cum	1	7.30	3.62	0.35	9.25
	For Approch Backet Beam - C1		2	7.30	0.30	0.30	1.31
						Total	10.56

PMC

Assistant Engineer,
SWD Dasarahalli Zone,BBMP.

Assistant Executive Engineer,
SWD Dasarahalli Zone,BBMP.

Measurement recorded on							
S.N	Description	Unit	No.	L	B	D	Qty
17	**KSRRB M2300-8.1.** Furnishing and Placing Reinforced/ Prestressed cement concrete in **super-structure** as per drawing and Technical Specification complete as per specifications. D. RCC / PSC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, Case - II : Using Batching Plant, Transit Mixer & Concrete Pump MORTH Specification No. 1500,1600 & 1700. Height upto 5 m all leads and lifts as directed by the Engineer in charge of the work.						
	For Slab CULVERT-2	Cum	1	7.50	3.36	0.35	8.82
	For Approch Backet Beam - C2		2	7.50	0.30	0.30	1.35
						Grand Total	10.17

PMC

Assistant Engineer,
SWD Dasarahalli Zone,BBMP.

Assistant Executive Engineer,
SWD Dasarahalli Zone,BBMP.

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BRUHAT BENGALURU MAHANAGARA PALIKE

Name of the work :- Construction of RCC culvert & U Shape drain for secondary SWD drains near Divya engineering works at Kammagondanahalli in Ward No.12

Measurement recorded on 31/12/2018

S.N	Description	Unit	No.	L	B	D	Qty
20	PVC pipes 2.50 kg/sqm 110mm outer dia as directed by the Engineer in charge of the work.						2.40
	Weep Holes C-1	Rmt	8	0.30			2.40
	Weep Holes C-2	Rmt	8	0.30		TOTAL	4.80

PMC Bangalore

Assistant Engineer, SWD Dasarahalli Zone,BBMP.

Assistant Executive Engineer, SWD Dasarahalli Zone,BBMP.

Measurement recorded on 31/12/2018

S.N	Description	Unit	No.	L	B	D	Qty
21	**KSRRB M2200.9. Providing and laying of Filter media** with granular materials/stone crushed aggregates satisfying the requirements laid down in clause 2500.4.2.2 of MORTH specifications to a thickness of not less than 600 mm with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to a firm condition complete as per drawing and Technical Specification complete as per specifications with all lead and lifts, etc., after breaking of clods complete as per specifications and as per direction of Engineer in-charge.page no 229/28.13 all leads and lifts as directed by the Engineer in charge of the work.						
	CULVERT-1	Cum	2	7.30	0.30	1.55	6.79
	CULVERT-2	Cum	2	7.50	0.30	1.55	6.98
						TOTAL	13.8

13.76

PMC

Assistant Engineer, SWD Dasarahalli Zone,BBMP.

Assistant Executive Engineer, SWD Dasarahalli Zone,BBMP.

Measurement recorded on 31/12/2018

S.N	Description	Unit	No.	L	B	D	Qty
23	KSRRB M100-1 Collecting, Conveying and disposal of surplus/excavated earth including Stone Boulder / Stone aggregates /Sand/ Kanker / Moorum to designated dumping site all leads and lifts for disposal as directed by the Engineer in charge of the work.						
		Cum					
				Qty As per vide item1+2+7+8			288.67

26.73+60.89+17.09 + 24.91+0.65

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Assistant Engineer, SWD Dasarahalli Zone,BBMP.

Assistant Executive Engineer, SWD Dasarahalli Zone,BBMP.

P-32 - Sch No 1 — 7.93

" — " — 7.56

P-33 — " — Sch No 2 — 11.83

P-35 - Sch No 7 — 12.15

P-37 - Sch No 7 — 27.73

P-43 — Sch No 7 — 26.73

P-49 — Sch No 7 — 17.09

P-35 — Sch - No 8 — 7.78

P-37 - Sch 8 - 60.89

P-43 — Sch 8 - 24.91

P-49 — Sch-8 - 10.65

P-55 — Sch 8 - 8.75

288.69

61

P-61

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BRUHAT BENGALURU MAHANAGARA PALIKE

Name of the work :- Construction of RCC culvert & U Shape drain for secondary SWD drains near Divya engineering works at Kammagondanahalli in Ward No.12

Measurement recorded on 1/1/2019

S.N	Description	Unit	No.	L	B	D	Qty
12	KSRRB M2100-10 - Plain Cement Concrete **M10 with OPC** cement @ 220 kgs, with crushed 40mm and down size graded metal coarse aggregates @0.84 Cum and fine aggregates @ 0.56Cum, in foundation mechanically mixed placed in foundation and compacted by vibration including curing for 14 days complete as per specifications MORTH Specification No.2100 all leads and lifts as directed by the Engineer in charge of the work.**(SR2018-19 P222/27.18)**						
	For Approch Slab					0.10	5.55
	Culvert-1		2	3.70	7.50	0.10	5.25
	Culvert-2		2	3.50	7.50		
						Total	**10.80**

PMC

Assistant Engineer,
SWD Dasarahalli Zone,BBMP.

Assistant Executive Engineer,
SWD Dasarahalli Zone,BBMP.

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BRUHAT BENGALURU MAHANAGARA PALIKE

Name of the work :- Construction of RCC culvert & U Shape drain for secondary SWD drains near Divya engineering works at Kammagondanahalli in Ward No.12

Measurement recorded on 1/1/2019

S.N	Description	Unit	No.	L	B	D	Qty
E-3	KSRRB M2700-7. Reinforced cement concrete M30 Approach slab including reinforcement @ 70 kg/cum and formwork complete as per drawing and Technical specification including cost of materials, labour, HOM complete as per specifications. MORTH Specification No.1500, 1600, 1700 & 2704 (Item no 32.7 & Page No-247)l means as directed by the Engineer in charge of the work.(SR 2018-19,P221/27.13)						
	Cum						
	For Approch Slab						
	Culvert-1		2	5.50	3.67	0.30	12.11
	Culvert-2		1	6.2	5.2	0.30	9.67
	Culvert-2		1	6.2	3.2	0.30	5.95
						Total	27.74

PMC

Assistant Engineer,
SWD Dasarahalli Zone,BBMP.

Assistant Executive Engineer,
SWD Dasarahalli Zone,BBMP.

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